

Chapter 10: Reproduction in Humans and Other Organisms

Making Sense of Reproductive Strategies

Process and Procedures

Pages 528-531

Date

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2. What are the similarities and differences in the reproductive strategies of your two organisms?

3a. What are some characteristics of each organism's reproductive strategy?

3c. What are the advantages and disadvantages of the reproductive strategies of your two organisms?

3d. How does each overall strategy ensure the continuation of the species?

Making Sense of Reproductive Strategies

NEED TO KNOW: Sexual and Asexual Reproduction

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Purpose of
reproduction

to ensure that a species can
continue

Reproduction

the process by which an organism
makes others of its own kind

Sexual reproduction

type of reproduction that involves
two sex cells (egg and sperm)

The egg and sperm join to form an
entirely new organism that is
different from the parent
organisms

Disadvantages

- takes more time
- requires more energy
- can be anatomically and
functionally complicated

Advantages

- variation within the species
(beneficial if environment
changes)

Gamete

a specialized reproductive cell

Ova

female reproductive cells (eggs)

Sperm

male reproductive cells

Zygote

cell that forms when the nuclei of an ovum and a sperm come together during sexual reproduction

It has the potential to develop into a new organism

The zygote carries a unique combination of genetic information from the male and female

Asexual reproduction

when a new organism (sometimes more than one) is produced from **one** organism

The offspring has the same genetic information as its parent

<http://www.brainpop.com/science/reproductionandheredity/asexualreproduction/preview.weml>

Advantages of asexual reproduction

- reproduce without finding a mate
- more offspring produced
- adapted for survival and reproduction in same environment as parent

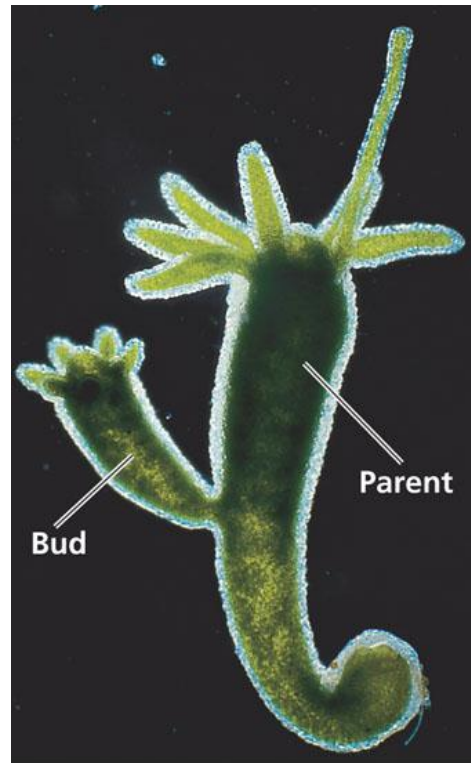
Types of asexual reproduction

- budding
- regeneration
- fission

Budding

process by which new, duplicate plant or animal begins to form at the side of the parent and enlarges until an individual is created

Very common in plants



Regeneration

the ability to regrow lost or damaged tissues, organs or limbs

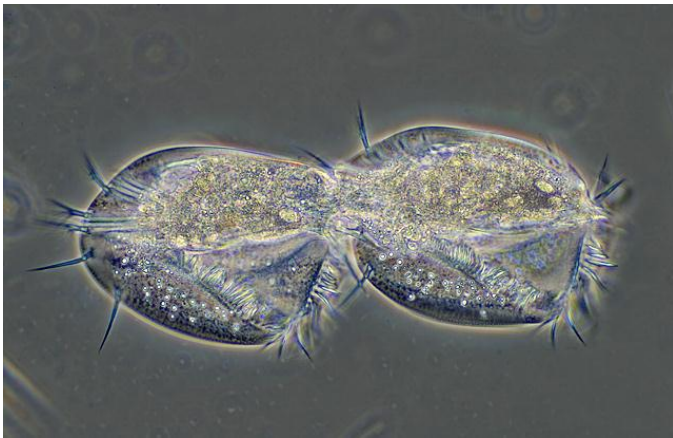
Common in invertebrates such as worms and sea stars



Binary fission



the process of dividing an organism into two separate organisms



Asexual vs. sexual



asexual reproduction results in organisms that are genetically identical to the parent organism

Sexual reproduction results in offspring that are genetically different from the parent organisms

